

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

FRIST:

VORFRISTEN:

AKTE:

NOT:

Applicant's or agent's file reference  25995 WO	<b>FOR FURTHER ACTION</b>		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No.  PCT/EP2004/013203	International filing date (day/month/year)  19/11/2004	(Earliest) Priority Date (day/month/year)  21/11/2003	
Applicant  ORTHOGEN AG	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>28. APR. 2005</b>  <i>SC</i> </div>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 8 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☒ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**DELIVERY PEPTIDES, THEIR CONSTRUCTS WITH ACTIVE AGENTS AND USE**

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2004/013203

## Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
- a. type of material
- ☒ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material
- ☒ in written format
- ☒ in computer readable form
- c. time of filing/furnishing
- ☒ contained in the international application as filed
- ☒ filed together with the international application in computer readable form
- ☐ furnished subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/013203

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K/06 A61K47/48 C12N15/62

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K A61K C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, BIOSIS, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/069930 A (CELLGATE, INC) 12 September 2002 (2002-09-12) cited in the application The whole document; see particularly page 21; example 13; fig. 21-24 -----	1-63
X	PARK J ET AL: "9-POLYLYSINE PROTEIN TRANSDUCTION DOMAIN: ENHANCED PENETRATION EFFICIENCY OF SUPEROXIDE DISMUTASE INTO MAMMALIAN CELLS AND SKIN" MOLECULES AND CELLS, SEOUL, KR, vol. 13, no. 2, 30 April 2002 (2002-04-30), pages 202-208, XP009016372 ISSN: 1016-8478 the whole document ----- -/--	1-63



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

1 March 2005

Date of mailing of the international search report

28. 04. 2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Groenendijk, M

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/013203

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/15511 A (UNIVERSITY OF PITTSBURGH OF THE COMMONWEALTH SYSTEM OF HIGHER EDUCATIO) 8 March 2001 (2001-03-08) cited in the application The whole document; see particularly table 1: peptides 3-5,7,12,13,21 -----	1,4-63
X	WO 02/07773 A (ESSENTIA BIOSYSTEMS, INC; WAUGH, JACOB; DAKE, MICHAEL) 31 January 2002 (2002-01-31) The whole document; see particularly page 9 -----	1,4-63
X	WO 01/66127 A (KOREA GREEN CROSS CORPORATION; POSTECH FOUNDATION; CHAE, CHI BOM; BAE,) 13 September 2001 (2001-09-13) see particularly Table 3 -----	1,3

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/013203

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02069930	A	12-09-2002	US 2002127198 A1	12-09-2002
			CA 2438326 A1	12-09-2002
			CA 2438784 A1	06-09-2002
			EP 1372626 A1	02-01-2004
			EP 1367995 A1	10-12-2003
			JP 2004533414 T	04-11-2004
			JP 2004530657 T	07-10-2004
			MX PA03007590 A	04-12-2003
			MX PA03007591 A	04-12-2003
			WO 02067917 A1	06-09-2002
			WO 02069930 A1	12-09-2002
			US 2003022831 A1	30-01-2003
			US 2004186045 A1	23-09-2004
-----				
WO 0115511	A	08-03-2001	AU 7473500 A	26-03-2001
			EP 1210362 A2	05-06-2002
			WO 0115511 A2	08-03-2001
			US 2003104622 A1	05-06-2003
			US 2003219826 A1	27-11-2003
			US 2005074884 A1	07-04-2005
-----				
WO 0207773	A	31-01-2002	AU 8466501 A	05-02-2002
			CA 2416289 A1	31-01-2002
			EP 1301213 A2	16-04-2003
			JP 2004513075 T	30-04-2004
			NZ 523719 A	26-11-2004
			WO 0207773 A2	31-01-2002
			US 2003215412 A1	20-11-2003
			US 2004220100 A1	04-11-2004
			US 2003229034 A1	11-12-2003
			ZA 200300513 A	22-01-2004
-----				
WO 0166127	A	13-09-2001	WO 0166127 A1	13-09-2001
			EP 1162991 A1	19-12-2001
-----				

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2004/013203

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 37,39,41,44-53,55,57,59,62 are directed to or encompass a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

### Inventions 1-39

Delivery peptide respectively comprising an amino acid sequence defined by SEQ ID Nos. 1-39; expression cassette as defined in claim 4, complexes as defined in claim 7 and

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-39

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Although claims 37,39,41,44-53,55,57,59,62 are directed to or encompass a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Inventions 1-39

Delivery peptide respectively comprising an amino acid sequence defined by SEQ ID Nos. 1-39; expression cassette as defined in claim 4, complexes as defined in claim 7 and their use as far as relating to respectively SEQ ID Nos 1-39

---